

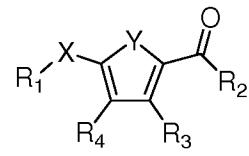
AMENDMENTS TO THE CLAIMS

Applicant has submitted a new complete claim set. This listing of claims will replace all prior versions and listings of claims in the application:

1-23. (Canceled)

24. (Currently Amended) A method of modulating an immune response in a subject, comprising:

administering to a subject in need of such immune modulation an amount of a compound ~~of claim 1~~ effective to enhance the ~~subject's~~ subject's immune response to an antigen, wherein the compound is of the formula:



wherein,

R₁ is alkyl, aryl, or heterocyclyl;

R₂ is H, alkyl, aryl, heterocyclyl, OR₃, or N(R₃)₂;

R₃ is H, alkyl, aryl, or heterocyclyl;

R₄ is H, CN, halogen, CF₃, CO₂R₃, or C(O)N(R₃)₂;

X is S, SO₂, O, or NR₃, and

Y is S, O, or NR₃.

25-28. (Canceled)

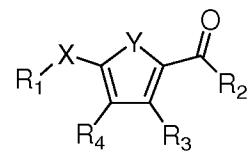
29. (Previously presented) The method of claim 24 wherein the subject is a subject having or at risk of having a cancer expressing a cancer antigen.

30-44. (Canceled)

45. (Previously presented) The method of claim 24 wherein the subject is a subject having or at risk of having an infectious disease.

46-67. (Canceled)

68. (Currently Amended) A method of enhancing MHC Class II catalyzed peptide exchange comprising contacting a cell bearing a MHC Class II molecule with a compound of claim 1 in the presence of a peptide that binds MHC class II, wherein the compound is of the formula:



wherein,

R1 is alkyl, aryl, or heterocyclyl;

R2 is H, alkyl, aryl, heterocyclyl, OR3, or N(R3)2;

R3 is H, alkyl, aryl, or heterocyclyl;

R4 is H, CN, halogen, CF3, CO2R3, or C(O)N(R3)2;

X is S, SO2, O, or NR3; and

Y is S, O, or NR3.

69-113. (Canceled)

114. (New) The method of claim 24, wherein

R_1 is alkyl, aryl, or heterocyclyl;

R_2 is H, aryl, heterocyclyl, OR_3 , or $N(R_3)_2$;

R_3 is aryl or heterocyclyl;

R_4 is H, CN, halogen, CF_3 , or $C(O)N(R_3)_2$;

X is S, SO_2 , or O; and

Y is S or O.

115. (New) The method of claim 24, wherein

R_1 is alkyl, aryl, or heterocyclyl;

R_2 is H, OR_3 , or $N(R_3)_2$;

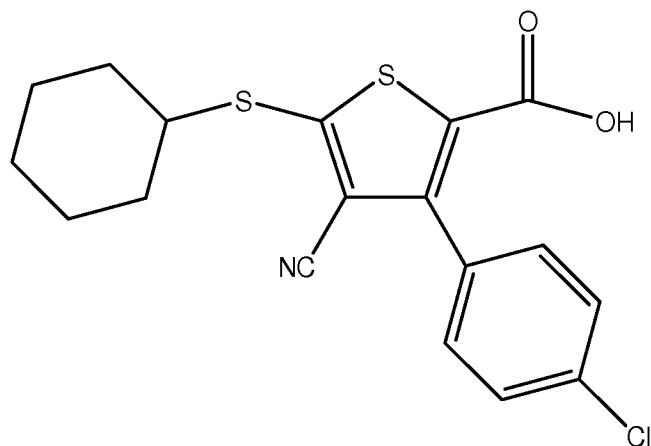
R_3 is aryl or heterocyclyl;

R_4 is H, CN, F, Cl, Br, or CF_3 ;

X is S; and

Y is S.

116. (New) The method of claim 24, wherein the compound is represented by the formula:



117. (New) The method of claim 24, further comprising administering an antigen to the subject.

118. (New) The method of claim 117, wherein the antigen is a cancer antigen.

119. (New) The method of claim 117, wherein the antigen is a viral antigen, a bacterial antigen, a fungal antigen or a parasitic antigen.

120. (New) The method of claim 68, wherein

R_1 is alkyl, aryl, or heterocyclyl;

R_2 is H, aryl, heterocyclyl, OR_3 , or $N(R_3)_2$;

R_3 is aryl or heterocyclyl;

R_4 is H, CN, halogen, CF_3 , or $C(O)N(R_3)_2$;

X is S, SO_2 , or O; and

Y is S or O.

121. (New) The method of claim 68, wherein

R₁ is alkyl, aryl, or heterocyclyl;

R₂ is H, OR₃, or N(R₃)₂;

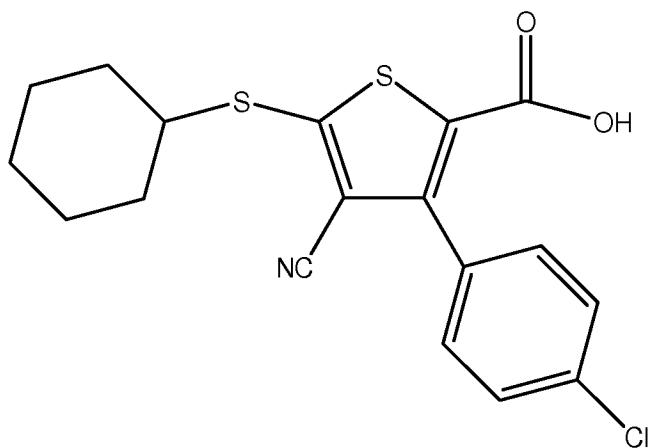
R₃ is aryl or heterocyclyl;

R₄ is H, CN, F, Cl, Br, or CF₃;

X is S; and

Y is S.

122. (New) The method of claim 68, wherein the compound is represented by the formula:



123. (New) The method of claim 68, further comprising administering an antigen to the subject.

124. (New) The method of claim 123, wherein the antigen is a cancer antigen.

125. (New) The method of claim 123, wherein the antigen is a viral antigen, a bacterial antigen, a fungal antigen or a parasitic antigen.